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Sent: Wednesday, July 10, 2019 12:40 PM

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Subject: LORS 2008 Deviation

Importance: High

Good Afternoon,

The U.S. Army Corps of Engineers, Jacksonville District (Corps) is preparing a National Environmental Policy Act (NEPA) Environmental Assessment (EA) and Proposed Finding of No Significant Impact (FONSI) associated with a planned deviation to the water control plan for Lake Okeechobee and the Everglades Agricultural Area (also known as the Lake Okeechobee Regulation Schedule (LORS 2008)). The agency goal for LORS is to balance project purposes while taking measures it can within its authority to further public health and safety. The Corps' intent is to improve the ecological health of Lake Okeechobee and the St. Lucie and Caloosahatchee estuaries with minimal or no impact to the competing project purposes. In addition to meeting Congressionally authorized project purposes including, flood control, water supply, navigation, fish and wildlife enhancement, and recreation, LORS objectives include: a) ensuring public health and safety; b) managing Lake Okeechobee at optimal lake levels to allow recovery of the lake's environment and natural resources; and c) reducing high volume regulatory releases to the estuaries.

The Corps is preparing NEPA documentation for a planned deviation from LORS 2008 in anticipation of and following freshwater harmful algae blooms (HABs) with the goal of reducing the risk to public health and safety associated with

HABs. The algae crisis has caused substantial and widespread impacts to Florida communities over the last several years (2016 and 2018) resulting in state declared emergencies in multiple counties. The proposed action will enhance the ability of the Corps to respond to HABs within its authority.

The planned deviation will alter the timing and volume of Lake Okeechobee releases to the Water Conservation Areas (WCAs), east, and/or west to allow for greater flexibility with water management decisions when HABs are present in Lake Okeechobee, the St. Lucie or Caloosahatchee estuaries or the system of canals that connect them. The planned deviation will allow the flexibility to make slightly larger releases east and west than LORS 2008 Part D (establishes allowable Lake Okeechobee releases to tide (estuaries)) calls for and make releases south when LORS Part C (establishes allowable Lake Okeechobee releases to the WCAs) does not recommend releases within the Beneficial Use Sub-Band, Base Flow Sub-Band, Low Sub-Band, and the Intermediate Sub-Band. These slightly larger releases when risk of transporting HABs is low will allow greater flexibility to reduce releases during times when HABs are present in the lake or estuaries. The releases under this flexibility would be below the harm thresholds for the Caloosahatchee and St. Lucie estuaries identified in the LORS 2008 Supplemental Environmental Impact Statement and 2007 RECOVER Northern Estuaries salinity performance measures.

Flow targets have been developed to achieve desired salinity ranges in the estuaries to meet the needs of key indicator species such as oysters and submerged aquatic vegetation. Within the Caloosahatchee Estuary, targets are based on freshwater discharges from the C-43 canal at the S-79 structure where the mean monthly inflow should be maintained between 450 and 2,800 cubic feet per second (cfs). Flows less than 450 cfs are considered harmful since these flow levels allow salt water to intrude, raising salinity above the tolerance limits for communities of submerged aquatic vegetation in the upper estuary. Flows greater than 2800 cfs cause mortality of marine seagrasses and oysters in the lower estuary and at flows greater than 4500 cfs seagrasses begin to decline in San Carlos Bay.

Within the St. Lucie Estuary, targets are based on freshwater discharges at the S-80, S-48, S-49 and Gordy road structures where the target frequency of mean biweekly flows should be maintained between 350 and 2,000 cfs. Based on the

salinity tolerances of oysters, flows less than 350 cfs result in higher salinities at which oysters are susceptible to increased predation and disease. Flows in the 350-2000 cfs range produce tolerable salinities. Flows greater than 2000 cfs result in low, intolerable salinity within the estuary. Flows greater than 3000 cfs damage seagrasses in the Indian River Lagoon.

The above targets were developed to reduce minimum discharges and mediate high flow events to the estuaries to protect estuarine habitat and biota. Under the proposed action, releases could be made in advance of HAB events, which would be limited to the maximum of either the LORS Part D guidance or 2,000 cfs measured at S-79 and up to 730 cfs measured at S-80 which are below the above identified targets.

The cumulative volume of water released under the planned deviation will be tracked against releases that would have been made under LORS 2008. The objective will be to reach a net zero balance such that the total volume released across the entire year is unchanged from the releases that would have taken place under the existing schedule without the deviation. The planned deviation would be implemented as soon as possible. The planned deviation will be in effect for a minimum duration of one year. The Corps Water Management Section's assessment of hydrometeorological conditions and stakeholder or agency input may suspend or discontinue the planned deviation due to impacts greater than expected/discussed within the EA. Termination of this deviation may be implemented at any time. Reevaluation of and possible extension of the planned deviation will occur after year one of implementation. The duration of the planned deviation may extend until LORS 2008 is replaced by a new water control plan (to be called the Lake Okeechobee System Operation Manual (LOSOM)) anticipated in 2022. The decision making-making process will remain unchanged from LORS 2008 and will include the opportunity for input during the Periodic Scientists Calls.

These operations would only be utilized if any one of the conditions below were met: (1) if a HAB is currently in Lake Okeechobee, C-43 or C-44 canals, the Caloosahatchee Estuary, or the St. Lucie Estuary; (2) if the state of Florida declares a state of emergency due to HABs on Lake Okeechobee, C-43 or C-44 canals, the Caloosahatchee Estuary, or the St. Lucie Estuary; (3) if a HAB is anticipated to occur on Lake Okeechobee, C-43 or C-44 canals, the Caloosahatchee Estuary, or

the St. Lucie Estuary; (4) if a HAB has occurred and caused harm, or has impacted public safety during the last 18 months within Lake Okeechobee, C-43 or C-44 canals, the Caloosahatchee Estuary, or the St. Lucie Estuary. Please refer to the attached draft HAB operational strategy for more details regarding the action.

The Corps has completed an EA and Proposed FONSI that will accompany our deviation request to the Corps' South Atlantic Division (SAD) for approval. If SAD approves, Jacksonville District plans to sign the FONSI and post for public notification and comment for a period of 30 days. Due to the nature and immediate need for this deviation, we are not able to solicit public comment prior to signature. The Corps will determine the need for supplemental NEPA once the public comment period has expired. The Corps has determined that this action is consistent to the maximum extent practicable with Florida's Coastal Management Program.

Please provide feedback at your earliest convenience to Andrew LoSchiavo at 904-232-2077 or at [Andrew.J.Loschiavo@usace.army.mil](mailto:Andrew.J.Loschiavo@usace.army.mil). Comments by July 12, 2019 would be appreciated.

Thank you,

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